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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/759,179	01/12/2001	Martin Hillebrand Bles	NL 000044	9984

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Corporate Patent Counsel  
U.S. Philips Corporation  
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EXAMINER

KACKAR, RAM N

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 09/06/2002

6

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/759,179

Applicant(s)

BLEES, MARTIN HILLEBRAND

Examiner

Ram N Kackar

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 and 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the method steps for making an electronic component using the stamp must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 112*

2 The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In this instance the specification has not disclosed a method of making patterned layer of organic semiconducting or conducting material including the solvent used. The example of a solution of octadecylthiole in ethanol given in the specification does not seem to pertain to a conducting or semiconducting polymer. Generally known methods of patterning conductive polymers are not by stamping a conductive polymer directly from a stamp to a substrate (See US 5976284 Col 2 line 27- 50).

***Claim Rejections - 35 USC § 102***

3 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by Whitesides et al (US 5900160) Whitesides et al disclose a method of manufacturing a stamp for use in a lithographic process (Fig 8a-9f Col 14 line 28 to Col 15 line 19) which includes anisotropic etching of a surface, to produce a recess which becomes narrower as its distance to the original surface increases (Fig 8d and Col 15 line 10-19), its projection always lying in the aperture and making a replica of the patterned mold surface (Fig 9d).

4 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-2, 8 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Hawker et al (US 6413587). Hawker et al disclose a stamp (Fig 1) for use in a lithographic process, comprising a body (10), a printing face (16), a recess with an aperture (14), the recess becoming

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narrower as its distance from printing face increases (Fig 1) and projection of the recess lying within the aperture (Fig 1), the recess having a triangular shape (Fig 1).

Regarding claims 8 and 10 Hawker et al disclose a method of applying a patterned layer using a stamp as disclosed earlier and disclose surface initiated polymerization (Col 2 line 36-38).

***Claim Rejections - 35 USC § 103***

5 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hawker et al (US 6413587) in view of Maracas et al (US 5937758). Hawker et al disclose a micro contact printing stamp but do not expressly disclose feature size to be less than 1  $\mu\text{m}$ . Maracas et al disclose a stamp with micron /sub micron feature size (Col 3 line 22-25 and Col 8 line 17-18). As feature size in integrated circuits is being required to be more and more narrower, it would have been obvious for one of ordinary skill in the art at the time invention was made to make the stamp of Hawker with sub micron feature size to be able to pattern sub micron features.

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6 Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawker et al (US 6413587). Hawker et al disclose a micro contact-printing stamp of equal aperture and printing face but it would have been obvious for one of ordinary skill in the art at the time invention was made to have aperture and printing face size of other dimensions in order to pattern features of various dimensions and configurations.

7 Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Whitesides et al (US 5900160) in view of Whitesides et al (Article Soft lithography Angew. Chem. Int. Ed. 1998, vol. 37 pages 551-575). White sides et al do not disclose expressly in (US 5900160) that a replica could be made of the body resulting from the method disclosed in claim 6. Whitesides et al in their article (page 562- 4.1 A) show that method of making replica of a rigid mold as well as an elastomer mold has been demonstrated at nanometer scale. Therefore making a replica of stamp body of claim 6 would have been obvious to one of ordinary skill in the art at the time invention was made so as to be able to pattern with the same polarity as the original master.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US 5855755, 5772905, 5976284 and 5512131 and WO/9706012

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ram N Kackar whose telephone number is 703 305 3996. The examiner can normally be reached on M-F 8:00 A.M to 5:P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Mills can be reached on 703 308 1633. The fax phone numbers for the

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organization where this application or proceeding is assigned are 703 872 9310 for regular communications and 703 872 9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0661.

RK

September 4, 2002

  
GREGORY MILLS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700